



# Bovine Trichomoniasis

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## What is Trichomoniasis?

Trichomoniasis, commonly referred to as "Trich," is a highly contagious sexually transmitted disease in cattle that result in abortions and infertility, and is caused by a microscopic protozoan parasite *Trichomonas foetus*. In the cow, the organism colonizes in the vagina and uterus. In bulls, the organism colonizes or lives in microscopic folds, or crypts, on the skin of the penis and prepuce. As a bull ages, conditions on the surface of the sex organs are more conducive for this protozoa to survive and multiply.

## Why is Trichomoniasis Important in Oklahoma?

The economic loss to the cattle producer is a reduced calf crop or lower overall weaning weights. For example, in infected herds with a short defined breeding season, the calf crop can be decreased by 50 percent. In herds with longer breeding seasons such as six months or longer, the calving period will be extended and thus weaning weights can be dramatically decreased. In smaller, less intensively managed herds in which the problem may not be readily recognized, cows may produce a calf every 18 months instead of the normal 12 months which will result in both lower weaning weights and fewer calves produced over the life of the cows in the herd. Following is a simple formula to estimate the economic loss for an individual cow herd:

\_\_\_ # cows bred x \_\_\_ % produce calf = \_\_\_ normal expected  
# calves to sell

\_\_\_ # calves normally x \_\_\_ % loss due to Trich = \_\_\_ #  
calves lost

\_\_\_ # calves lost x \$ \_\_\_ estimated market value = \$ \_\_\_  
dollars lost

Conservative estimates for the state of Oklahoma for monetary losses due to Trichomoniasis are \$5,400,000.

## What to look for in cattle infected with Trichomoniasis?

Infected bulls and cows usually look and act normal. The only way to confirm Trichomoniasis infection is by testing. Typically, cattle producers become aware of a problem when cows are pregnancy checked and there are too many open cows, a prolonged calving period, or noticeably reduced calf crop.

Reabsorption of the fetus or abortion usually occurs early (one to four months) in pregnancy and females become temporarily infertile. Late term abortions have been reported but are not common. The majority of infected cows will clear a Trichomoniasis infection within four to five months of sexual rest. Immunity to Trichomoniasis is short lived and cows are susceptible to re-infection and abortion the following season. Some cows will not clear the infection and occasionally develop a pyometra (pus-filled uterus).

Bulls become infected with the Trichomoniasis protozoa when breeding infected females. Bulls younger than three years of age may clear the infection, but bulls older than three years are generally permanently infected. At this time, there is not an approved treatment or vaccination to use on bulls.

## How to Confirm Trichomoniasis?

Although the primary impact of Trichomoniasis is reduced fertility in cows and cows spread the infection to bulls, Oklahoma Trichomoniasis regulations center on bulls. Bulls act as a reservoir for this organism and are the primary method of transmission. Identification of infected bulls is critical. Producers should work closely with a veterinarian who is certified to collect samples for the necessary testing to identify any Trichomoniasis infected bulls in their herds.

## Control and Prevention of Trichomoniasis

The most effective way to control Trichomoniasis is to prevent the introduction of the organism into a herd. This is primarily accomplished through testing all new bulls prior to entry into the herd and preventing unwanted bulls from entering through damaged fence lines. Keeping young bulls rather than older ones and testing all bulls prior to each breeding season are also important tools. Establishing a defined breeding season and early pregnancy diagnosis will aid in rapid

detection of reproductive losses caused by Trichomoniasis and other reproductive diseases.

As with most infectious diseases, a good biosecurity plan is critical to preventing introduction and/or controlling the organism within a herd.

A vaccine for Trichomoniasis is available and labeled for use in controlling the disease in cows. The vaccine will reduce the reproductive losses associated with the disease and may reduce the time it takes a cow to clear the infection. However, in most herds, managing the risk factors for Trichomoniasis through biosecurity is less effective than vaccination. Currently, the vaccine is not labeled for use in bulls. Producers are encouraged to work with their veterinarian to develop appropriate protocols for controlling Trichomoniasis and other reproductive diseases in their herds.

## New Oklahoma Trichomoniasis Regulations

### Requirements for breeding bulls change of ownership within the state of Oklahoma

Effective January 1, 2011, any bull changing ownership in Oklahoma by private sale, public sale, lease, trade, or barter must have a negative test for Trichomoniasis within 30 days of change of ownership. Exceptions are:

- Bulls that are less than 24 months of age and can be certified as virgin bulls.
- Bulls that are being sold directly to a slaughter establishment.
- "Cutter Bulls" that will be put on feed for slaughter only within 10 days of purchase.

Untested bulls consigned to livestock markets will be allowed to be sampled at the market at the buyer's expense and transported to the buyer's premise under quarantine until negative test results have been reported. The livestock market will not be liable for bulls that test positive after the

sale. Bulls tested positive at markets must be castrated or sold for slaughter only within 10 days of notification.

The herd of origin will be notified that a bull from the herd tested positive for Trichomoniasis. The herd owner will be advised to contact their veterinarian for assistance in managing and eradicating the disease from the herd.

In addition to the new regulations Oklahoma has:

#### **Requirements of Breeding Bulls Entering Oklahoma.**

Bulls entering Oklahoma from any state must be tested negative for trichomoniasis within 30 days of entry and be identified with an official identification device. Acceptable ID are silver metal USDA tag, 840 RFID tag, registration tattoo or brand if accompanied by a copy of the registration papers.

Exceptions are:

- Bulls less than 24 months of age that can be certified as virgin bulls.
- Bulls consigned directly to slaughter.
- Rodeo or bucking bulls that travel to an event and then leave the state.

Three negative culture tests done at weekly intervals or one negative PCR test meets the Oklahoma testing requirements.

For ALL bulls entering Oklahoma, applicable tuberculosis and/or brucellosis entry requirements must be met and the shipment must have a valid Certificate of Veterinary Inspection. Additional information regarding Oklahoma entry requirements call Oklahoma Department of Agriculture, Food, Forestry's (ODAFF) permit line at (405) 522-614 or check the ODAFF web page at [www.oda.state.ok.us](http://www.oda.state.ok.us). More information on management of the disease can be obtained from your local veterinarian, Oklahoma State University (OSU) Center for Veterinary Health Sciences, Oklahoma Cooperative Extension Service, Oklahoma Animal Disease Diagnostic Laboratory, or the Animal Industry Division of Oklahoma Department of Agriculture, Food, and Forestry (ODAFF).

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